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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)	
2003P00537WOUS	

Application Number	Filed
10/551,339	September 14, 2006
First Named Inventor	
Ilias Manettas et al.	
Art Unit	**Examiner**
3744	Alexis K. Cox

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ Applicant/Inventor

☐ Assignee of record of the entire interest. See 37 C.F.R. § 3.71. Statement under 37 C.F.R. § 3.73(b) is enclosed. (Form PTO/SB/96)

☐ Attorney or agent of record _____ (Reg. No.)

☒ Attorney or agent acting under 37CFR 1.34.
Registration number if acting under 37 C.F.R. § 1.34 62,246

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Signature

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Requester's telephone number

May 20, 2010
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.*

☒ *Total of 1 form/s are submitted.

If you need assistance in completing the form, call 1-800-PTO-9199 and selection option 2.

Claim 22 was rejected under 35 U.S.C. §112, second paragraph. Appellants acknowledge that a "wind wheel" is a device that rotates in response to the presence of wind. Appellants respectfully take issue with the Examiner's interpretation of the term "directly displaceable" as being restricted to "linear displacement in the direction of air movement." Rather, the term should not be interpreted in a manner that is inconsistent with its ordinary use. Since the air flow directly contacts the wind wheel thereby causing the wind wheel to turn, the wind wheel is "directly displaceable" by air flow through the air passage. Appellants thus submit that claim 22 satisfies the requirements of 35 U.S.C. §112, second paragraph. Withdrawal of the rejection is requested.

With regard to claims 11, 15-18 and 20, the Office Action maintains that the temperature sensors in Tilmanis constitute "a measuring device arranged in the air passage to provide a measured signal representative of the air flow through the air passage." Appellants submit, however that this contention is inaccurate.

Tilmanis discloses an automatic defrosting system for refrigerators and the like. The system includes two thermistors 36, 38 that serve as temperature sensors. In this manner, the system senses the temperature of the evaporator coil (via thermistor 36) and the temperature of a storage space of the refrigerator (via thermistor 38) and automatically initiates operation of the defrost apparatus when the difference between the two temperatures exceeds a predetermined value. Tilmanis describes that as frost builds up on the evaporator coil, it exercises a progressively increasing insulating effect, so that eventually the rate of heat inflow to the storage space exceeds the rate at which heat is extracted therefrom by the evaporator. It is clear then from the express teachings in Tilmanis that the Tilmanis structure monitors *temperatures* to determine whether a defrost operation should be initiated. In contrast, claim 11 defines a measuring device arranged in the air passage that provides a measured signal representative of air flow through the air passage. Nowhere does Tilmanis remotely disclose that the thermistors 36, 38 are capable of providing a signal representative of air flow through the air passage. This distinction appears to have been recognized at some point during the Examiner's consideration of this application or during a supervisory review of the Office Action where a comment was added in the margin on

page 3 asking "How is air flow being measured in Tilmanis?" As noted, Tilmanis in fact does not perform any such measurement.

In addition, claim 11 recites that the measuring device is arranged in said air passage. The Office Action's contention that the temperature sensors constitute a measuring device "arranged in the air passage" amounts to a mischaracterization of the Tilmanis structure. As shown in the drawings, even assuming the contentions with regard to the temperature sensors are somehow viable, the second thermistor 38 is positioned in the food storage chamber 12. Since anticipation under 35 U.S.C. §102(b) requires each and every feature of the claimed invention to be disclosed in a single prior art reference, and since at least this feature is also lacking in Tilmanis, Appellants submit that for this reason also, the rejection of independent claim 11 is misplaced.

With regard to dependent claims 15-18, Appellants submit that these claims are allowable at least by virtue of their dependency on an allowable independent claim. Additionally, claim 15 recites that the measuring device includes two temperature sensors which are thermally differently closely coupled to at least one of a heat source and a sink and the air in said passage indicative of air flow speed. Claim 16 recites that the heat sink is the evaporator. The thermistors 36, 38 in Tilmanis, in contrast, are respectively disposed in contact with the evaporator and in the storage chamber. Since this subject matter is also lacking in Tilmanis, Appellants submit that these dependent claims are allowable.

Independent claim 20 defines a method for controlling the defrosting of an evaporator in a refrigeration device. The method includes a step of estimating an air flow through said air passage in which said evaporator is arranged. Nowhere does the Tilmanis patent even remotely disclose a step of estimating an air flow through an air passage. Rather, as noted above, Tilmanis discloses the use of thermistors 36, 38 to measure a difference in the temperatures between the evaporator coil and the storage space. The Examiner contends that Tilmanis discloses "a monitoring and control circuit which estimates an air flow through the air passage in which the evaporator is arranged by determining the difference between the temperature values detected by a pair of temperature sensors." This also is a mischaracterization of the Tilmanis patent. As noted, Tilmanis is unconcerned with detecting or estimating air flow through the air

passage. Even if the thermistors in Tilmanis are somehow *capable* of performing this physical step, which Appellants do not believe nor concede, Tilmanis lacks even a remote teaching of performing the claimed estimating step. Since at least this step is missing in the Tilmanis patent, Appellants submit that the rejection of independent claim 20 is also misplaced.

With regard to claim 12, the Examiner recognizes that Tilmanis lacks the claimed measuring device including a body driven to move by the air flow in the passage and a sensor to record the movement of the body indicative of air flow speed . . . . The Office Action contends, however, that Howland discloses this subject matter. Appellants respectfully disagree. Howland discloses a refrigeration system including an evaporator coil 10. Air to be cooled by the refrigeration system is blown by a blower fan 13 through the evaporator coil 10. A rotatable impeller 15 is positioned in an opening 14 on one side of the evaporator coil 10. The impeller 15 drives a clock timer gear train 16, which after a certain number of rotations by the impeller 15 activates a defrost initiation signal switch 17. Although a speed of the impeller 15 varies based on air flow through the evaporator coil 10, the impeller 15 does not amount to a sensor "to record the movement of said body indicative of air flow speed." To the contrary, as noted, the impeller 15 merely drives a clock timer gear train 16. Moreover, Appellants submit that claim 12 is allowable at least by virtue of its dependency on an allowable independent claim. Withdrawal of the rejection is requested.

With regard to the rejection of claims 13 and 21, Appellants submit that claim 13 is allowable at least by virtue of its dependency on an allowable independent claim. That is, the Howland and Berrett patents do not correct the noted deficiencies with regard to Tilmanis. Moreover, claim 13 recites that the measuring device includes an elastic element that can be deflected from a rest position by the air flow in the passage and a sensor to record the deflection of the element indicative of air flow speed . . . . The Berrett patent merely describes a flow sensor 32 that is responsive to air flow through an air duct to close a switch when a predetermined air flow exists. The flow sensor thus serves only to close the switch (and possibly to open the switch) as a consequence of a fixed air flow. The measuring device defined in claim 13, to the contrary, includes the elastic element and a sensor that records the deflection of the

elastic element indicative of air flow speed. The sensor thus determines an air flow speed based on a deflection *amount* of the elastic element. Appellants submit that this structure is distinguishable from the "sail" switch 32 described in Berrett.

Appellants submit that claim 21 is allowable for similar reasons. In addition, with reference to the discussion above concerning claim 11, claim 21 recites that the measuring device is disposed in said air passage. As discussed above, this subject matter is lacking in Tilmanis, and neither Howland nor Berrett provides a suitable teaching that would lead those of ordinary skill in the art to modify the Tilmanis structure to meet this feature of the invention.

With regard to claim 14, Appellants submit that this claim is allowable at least by virtue of its dependency on an allowable independent claim. That is, the Pao patent does not correct the deficiencies noted with regard to Tilmanis and claim 11. In addition, the Office Action recognizes that Tilmanis lacks the claimed measuring device including a pressure sensor to measure a dynamic air pressure in the passage indicative of air flow speed. The Office Action contends that Pao discloses the use of a pressure sensor "to determine air flow across the evaporator coil." Appellants respectfully submit that this contention is a mischaracterization of the Pao patent. Pao in fact specifically describes that the defrosting process "is initiated by pressure switch 18 which senses a drop in the pressure across the coil when compared to a reference fan pressure performance curve." See, for example, col. 4, lines 16-27. Contrary to the Examiner's contentions in the Office Action, sensing a drop in pressure falls short of the claimed subject matter wherein a pressure sensor measures a dynamic air pressure in the passage indicative of air flow speed. Withdrawal of the rejection is requested.

Claim 19 recites that one of the temperature sensors in the embodiment utilizing temperature sensors to determine air flow is arranged on an output of the air passage. In this context, the Examiner contends that it would have been obvious to move the second thermistor 38 in Tilmanis to the outlet of the evaporator passage. Appellants submit that the proposed modification is not suggested in Tilmanis. Tilmanis specifically discloses that the second thermistor 38 is arranged within the frozen food storage chamber 12. The placement of the second thermistor is not arbitrary. Tilmanis describes as an object of the invention to periodically sense the temperature of the

evaporator coil and the temperature of a storage space of the refrigerator. Tilmanis initiates the operation of the defrost apparatus when the difference between these two temperatures exceeds a predetermined value. The modification proposed in the Office Action thus directly contrasts an express objective of the Tilmanis patent. Additionally, changing a position of the thermistor 38 would require circuit modifications and programming modifications, which are neither disclosed nor suggested in Tilmanis. Appellants thus respectfully submit that the rejection is misplaced. Appellants respectfully submit that that Office Action's conclusion amounts to improper hindsight. That is, it is hindsight to modify the temperature sensors in Tilmanis for detecting temperature differences between the evaporator and the storage space to a measuring device arranged in the air passage for providing a measured signal representative of air flow through the air passage. Moreover, Appellants submit that this dependent claim is allowable at least by virtue of its dependency on an allowable independent claim.